Introduction

General

This Technical Booklet has been prepared by the Department of Finance and Personnel and provides for certain methods and standards of building which, if followed, will satisfy the requirements of the Building Regulations (Northern Ireland) 2000 ("the Building Regulations").

There is no obligation to follow the methods or comply with the standards set out in this Technical Booklet.

If you prefer you may adopt another way of meeting the requirements of the Building Regulations but you will have to demonstrate that you have satisfied those requirements by other means.

Other regulations

This Technical Booklet relates only to the requirements of regulation H3, H4, H5, H6 and H7. The work will also have to comply with all other relevant Building Regulations.

British Standards and European Technical Specifications

In this introduction and throughout this Technical Booklet any reference to a British Standard shall be construed as a reference to –

(a) a British Standard or British Standard Code of Practice;

(b) a harmonised standard or other relevant standard of a national standards body of any Member State of the European Economic Area;

(c) an international standard recognised for use in any Member State of the European Economic Area;

(d) any appropriate, traditional procedure of manufacture of a Member State of the European Economic Area which has a technical description sufficiently detailed to permit an assessment of the goods or materials for the use specified; or

(e) a European Technical Approval issued in accordance with the Construction Products Directive,

provided that the proposed standard, code of practice, specification, technical description or European Technical Approval provides, in use, equivalent levels of safety, suitability and fitness for purpose as that provided by the British Standard.

Products conforming with a European Council Directive

Any product designed and manufactured to comply with the requirements of a European Council Directive does not have to comply with any other standard or part of a standard, whether British, International or other, which relates to the same characteristic or specific purpose as the EC Directive.

CE marked construction products

Any construction product (within the meaning of the Construction Products Directive) which bears a CE marking shall be treated as if it satisfied the requirements of any appropriate British Board of Agrément Certificate, British Standard or British Standard Code of Practice relating to such a product, where the CE marking relates to the same characteristic or specific purpose as the Certificate, Standard or Code of Practice.

Testing of materials and construction

Where for the purposes of this Technical Booklet testing is carried out it shall be carried out by an appropriate organisation offering suitable and satisfactory evidence of technical and professional competence and independence. This condition shall be satisfied where the testing organisation is accredited in a Member State of the European Economic Area in accordance with the relevant parts of the EN 45000 series of standards for the tests carried out.

Materials and workmanship

Any work to which a requirement of the Building Regulations applies must, in accordance with Part B of the Building Regulations, be carried out with suitable materials and in a workmanlike manner. You can comply with the requirements of Part B by following an appropriate British Standard or you may demonstrate that you have complied with those requirements by other suitable means, such as an acceptable British Board of Agrément Certificate, Quality Assurance Scheme, Independent Certification Scheme or Accredited Laboratory Test Certificate.

Diagrams

The diagrams in this Technical Booklet supplement the text. They do not show all the details of construction and are not intended to illustrate compliance with any other requirement of the Building Regulations. They are not necessarily to scale and should not be used as working details.

References

Any references in this Technical Booklet to a publication shall, unless otherwise stated, be construed as a reference to the edition quoted, together with any amendments, supplements or addenda thereto current at 30 June 2006 .

Contents

Section 1 General

1.1 Part H does not require a building, other than a dwelling of more than one storey, to have a stair. However, where a stair or ramp is provided it must comply with the requirements of Part H.

A stair or ramp which forms part of a means of escape in the case of fire as required by Part E, may need to meet requirements in that part which are additional to the provisions described in this Part.

In a dwelling or a block of dwellings, a stair or a ramp which forms part of a means of access as required by Part R, may need to meet requirements in that part which are additional to the provisions described in this Part.

An open window, skylight or ventilator that projects into the space over a means of access as required by Part R, may need to meet requirements in that part which are additional to the provisions described in this Part.

Definitions

1.2 In this Technical Booklet the following definitions apply –

Going (in relation to a step) – the depth of the tread less any overlap with the next tread (see Diagram 1.1).

Private stair – a stair in or intended to be used by only one dwelling.

Retail building – shop, department store, supermarket, public house, restaurant with or without assembly area, cafe, hairdresser, wholesale self-selection trading, public area of a bank, building society, betting shop.

Rise (in relation to a step) – the height, including the thickness of the tread (see Diagram 1.1).

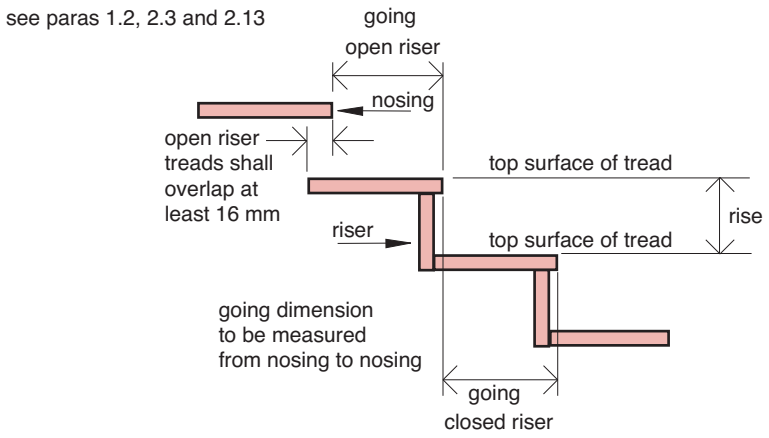
Small room – any room in a dwelling having a floor area not exceeding 4 m^2.

Step – in a dwelling, does not include any threshold which has a height not exceeding 40 mm in the case of an internal doorway or 75 mm in the case of an external doorway.

Surface width – the width of a stair or ramp, measured at the tread of a step or the surface of a ramp, between any enclosing walls, strings, upstands, kerbs or guarding.

Tapered tread – a tread which has a greater width at one side than at the other and a going which changes at a constant rate throughout its length.

Diagram 1.1 Measuring rise and going



Visual contrast

1.3 Visual contrast is the perception of a difference visually between one element of a building and another by reference to their light reflectance values.

Light reflectance value (LRV) is the total quantity of visible light reflected by a surface at all wavelengths and directions when illuminated by a light source.

For people with adequate vision, differences in the nature or the intensity of colour provide adequate visual contrast. Unfortunately, this is not the case for all people who are visually impaired. The main feature of a surface, which appears to be strongly correlated with the ability of visually impaired people to identify differences in colour, is the LRV. Differences in LRV can be used to assess the degree of visual contrast between the surfaces of elements such as handrails, step nosings etc..

The LRV scale runs from 0, which is a perfectly absorbing surface that could be assumed to be totally black, up to 100, which is a perfectly reflective surface that could be considered to be the perfect white. Because of practical influences in any application, black is always greater than 0 and white never equals 100.

A difference in LRV of 30 points or more allows a degree of variability that is required to provide reasonable visual contrast.

Section 2 Stairs

Common provisions for all stairs

2.1 A private stair or a common stair in a block of dwellings, shall comply with the provisions of paragraphs 2.3 to 2.26.

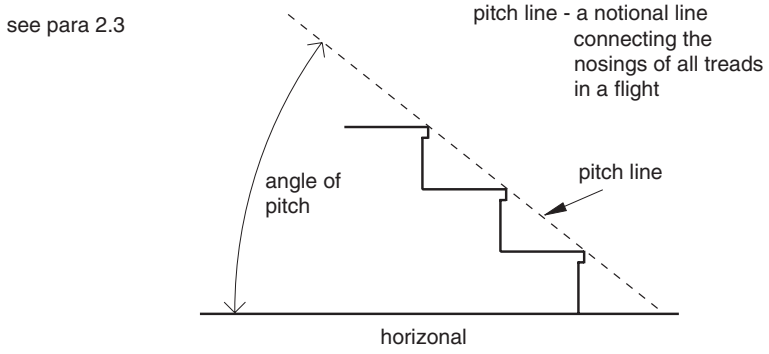
2.2 A stair in a building other than a dwelling or a common stair in a block of dwellings, shall comply with the provisions of paragraphs 2.3 to 2.10 and 2.27 to 2.40.

Pitch

2.3 The pitch of a flight shall be controlled by limiting the rise and the going.

Diagram 2.1 shows how the pitch shall be measured and what is meant by the pitch line. Diagram 1.1 shows how to measure the rise and going.

Diagram 2.1 Measuring angle of pitch



2.4 Subject to paragraph 2.11 the relationship between the dimensions of the rise and going is that twice the rise (R) plus the going (G) i.e. (2R + G) shall be between 550 mm and 700 mm. The rise and the going are given in Table 2.1.

Table 2.1 Rise and going

Category	Rise		Going
	minimum (mm)	maximum (mm)	minimum (mm)
1 Private stair	75	220	220
2 A common stair in a block of dwellings	75	170	250
3 A stair in any building (other than a private stair or a common stair in a block of dwellings)	150	170	250

Note A stair within more than one category shall be constructed to the more onerous standard

2.5 In a flight, the steps shall all have the same rise and they shall all have the same going.

2.6 Where the landing of a stair is formed by the ground and slopes across the width of the flight, then the rise of the step shall be measured at the mid-point of the width of the flight (see paragraph 2.10).

2.7 Steps shall have level treads which extend for the full width of the flight.

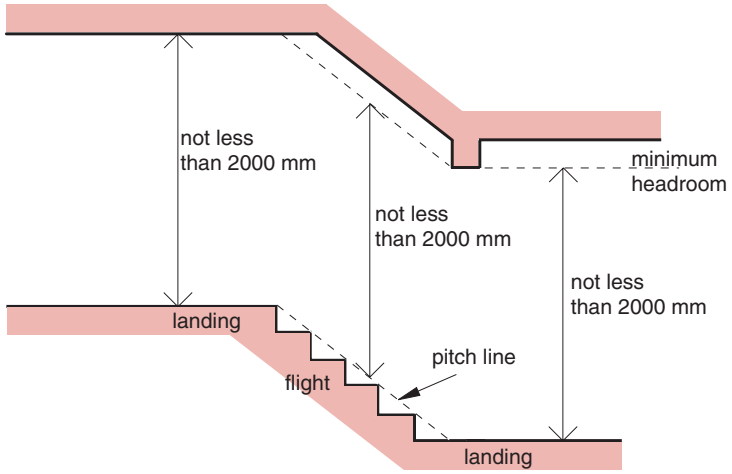
Headroom

2.8 A stair shall have a clear headroom of not less than 2000 mm over its full length and width.

Headroom is measured vertically from the pitch line of the flight and the level of the landing (see Diagram 2.2).

Diagram 2.2 Measuring headroom

see para 2.8

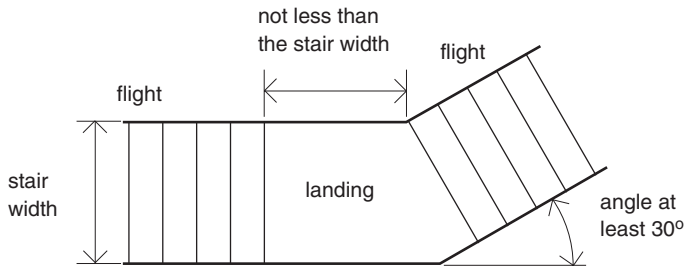


Change of direction

2.9 A stair of more than 36 rises in consecutive flights shall have at least one change in direction between flights of at least 30° (see Diagram 2.3).

Diagram 2.3 Change of direction

see para 2.9



Landings

2.10 Landings shall be level unless they are formed by the ground at the top or bottom of a flight where they may have a gradient not greater than –

(a) 1 in 20 in the case of a private stair; or

(b) 1 in 60 for all other stairs.

Landings formed by the ground shall be paved or otherwise made firm.

Additional provisions for private stairs and common stairs in blocks of dwellings

Pitch

2.11 The pitch of a private stair shall not exceed 42°, therefore it is not possible to combine a maximum rise with a minimum going.

The rise and the going are given in Table 2.1.

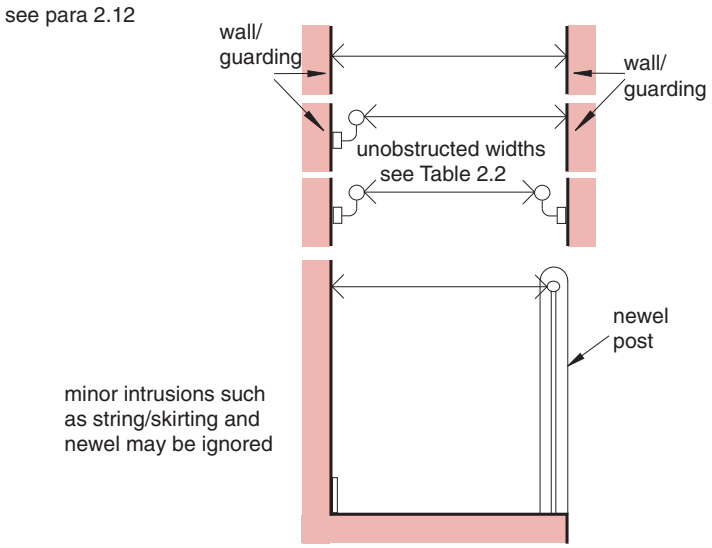
Width of flights

2.12 The minimum unobstructed widths for a flight, in a private stair and a common stair in a block of dwellings, are given in Table 2.2 and shall be measured in accordance with Diagram 2.4.

Table 2.2 Widths of flights in a private stair and a common stair in a block of dwellings

Category	Minimum unobstructed width (mm)
1 Private stair -	
(a) providing access to one room only (not being a kitchen or living room) or to a bathroom and a water closet	600
(b) other than (a) above	800
2 A common stair in a block of dwellings	1000

Diagram 2.4 Measuring the width of a private stair and a common stair in a block of dwellings



Construction of steps

2.13 A private stair may have steps with open rises, but the treads shall then overlap each other by at least 16 mm (see Diagram 1.1).

A private stair which has open rises, shall be constructed so that a 100 mm diameter sphere cannot pass through the open rises.

2.14 A common stair in a block of dwellings shall have steps with rises that are not open and have a suitable profile such that the risk of tripping is reduced (see Diagram 2.9 (b)).

2.15 The number of rises in a flight shall be a maximum of 16 and a minimum of 2. However, notwithstanding the provisions of paragraph 2.18, a single step may be provided –

(a) at the bottom of a stair in a dwelling;

(b) at an entrance to a dwelling;

(c) between any enclosed porch, outhouse or conservatory and the remainder of a dwelling;

(d) where it provides access to a small room; and

(e) between a garage and a dwelling.

Landings

2.16 A landing shall be provided at the top and bottom of every flight.

The width of a landing shall be not less than the width of the stair.

The going of a landing shall be not less than the width of the flight.

Part of a floor may be considered as a landing.

2.17 A landing shall be clear of any obstruction. However, in a private stair –

(a) a door may swing across a landing at the bottom of a flight but only where it will leave a clear space of at least 400 mm across the full width of the flight (see Diagram 2.5); and

(b) a door to a cupboard or duct may swing across a landing at –

(i) the bottom of a flight; and

(ii) the top of a flight where it will leave a clear space of 400 mm across the full width of the flight (see Diagram 2.6).

Diagram 2.5 Landings next to doors

see para 2.17(a)

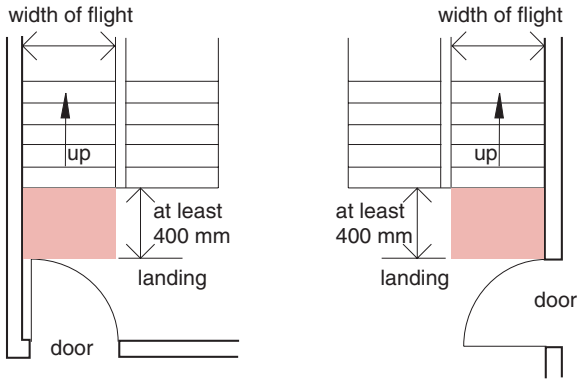
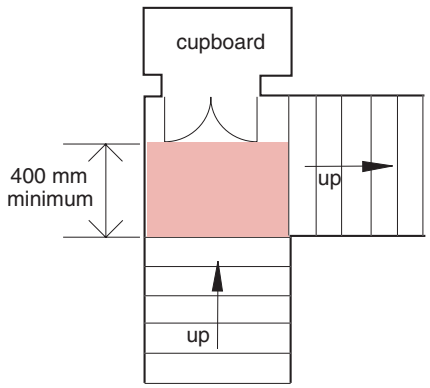


Diagram 2.6 Cupboards onto landings

see para 2.17(b)(ii)



2.18 A landing need not be provided between an external flight and a doorway if the rise of the flight is not more than 600 mm and the door slides or opens away from the steps.

Where there is a single step between a garage and a dwelling, a door may open out over the step when the door, in the closed position, has some part of its thickness in line with the riser of the step.

Steps with tapered treads

2.19 Where steps have tapered treads, the going shall be measured as follows –

(a) if the width of the flight is less than 1000 mm, measure in the middle or;

(b) if the width of the flight is 1000 mm or more, measure 270 mm from each side.

(See Diagram 2.7.)

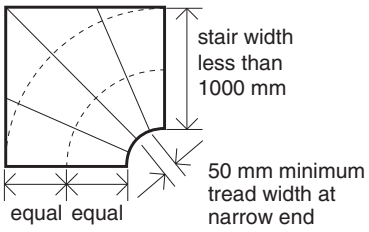
2.20 The narrow ends of consecutive treads shall be on the same side of the stair and have a going of not less than 50 mm (see Diagram 2.7).

2.21 The rise and the going measured at the positions, in paragraph 2.19 (a) or (b) whichever is appropriate shall be within the limits given in paragraphs 2.4 and 2.11 and Table 2.1.

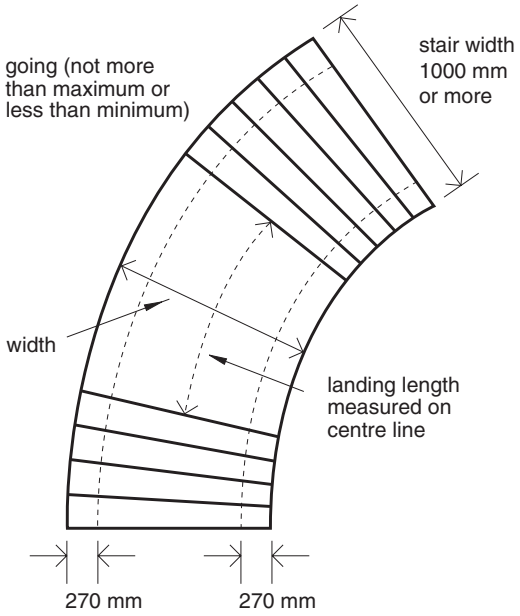
2.22 Where a stair consists of straight and tapered treads, the going of the tapered treads shall be not less than the going of the treads on the straight flight.

Diagram 2.7 Measuring tapered treads

see paras 2.19 and 2.20



measure going at centre of tread
measure from curved stair line, even when tread is in rectangular enclosure



Stair width less than 1000 mm **Stair width 1000 mm or more**

Handrails

2.23 Flights in a private stair with a total rise of more than 600 mm and a common stair in a block of dwellings, shall have a continuous handrail –

(a) on at least one side where they are 1000 mm wide or less; or

(b) on both sides where they are more than 1000 mm wide.

Where only one handrail is required on a flight with tapered treads, it shall be located on the outer side of the flight.

2.24 Handrails are not required beside the two steps at the bottom of a private stair.

2.25 Handrails shall be at a height measured vertically of between 900 mm and 1000 mm above the pitch line, give firm support and allow a firm grip.

Handrails may form the top of guarding.

2.26 The handrail to a common stair in a block of dwellings, shall extend horizontally for a distance of not less than 300 mm, along the top and bottom landings.

Additional provisions for stairs in buildings other than dwellings

2.27 The following provisions shall apply to a stair which is not a private stair or a common stair in a block of dwellings.

Pitch

2.28 The rise and the going are given in Table 2.1.

2.29 There shall be not less than 2 rises and not more than 12 rises in each flight.

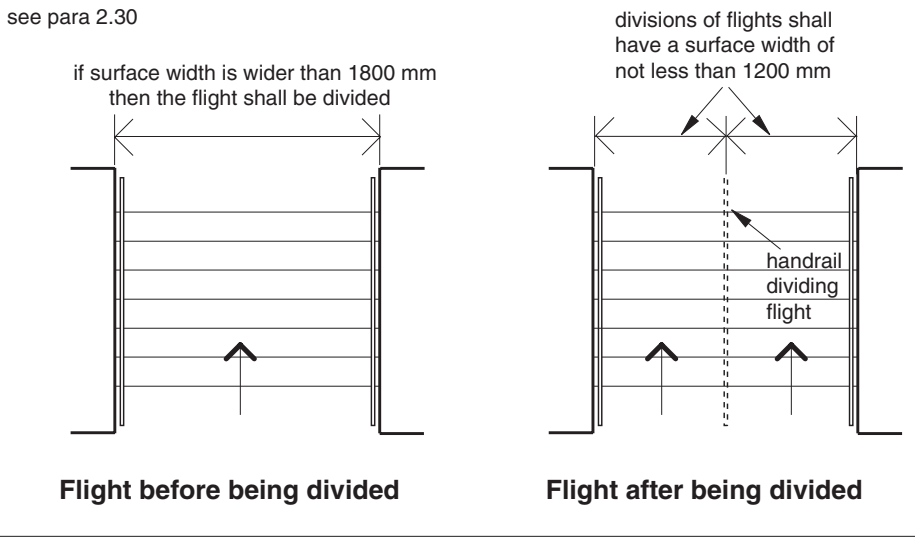
Width of flights

2.30 A flight shall have a surface width of not less than 1200 mm.

Where a handrail protrudes into the surface width of a flight by more than 100 mm, the surface width shall be increased accordingly. In any case, the maximum protrusion of a handrail into the surface width of a flight shall be 110 mm.

A flight of steps which has a surface width wider than 1800 mm, shall be divided into flights which are not wider than 1800 mm. The minimum surface width of 1200 mm then applies to each flight (see Diagram 2.8).

Diagram 2.8 Dividing wide flights



Construction of steps

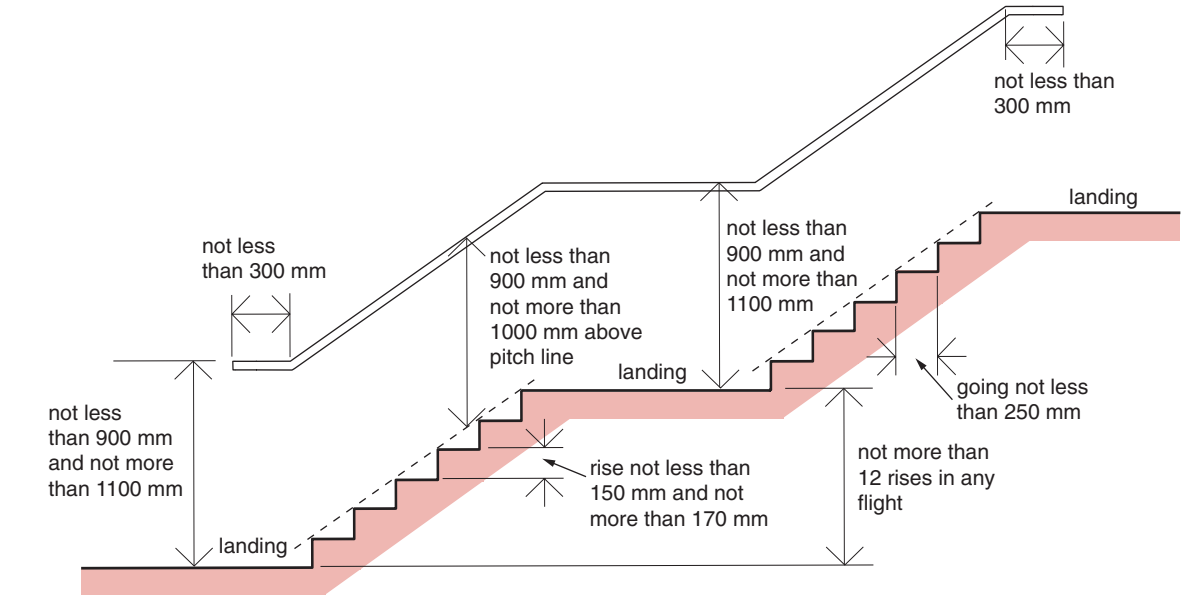
2.31 Steps shall have step nosings which are distinguishable through suitable permanent visual contrast. The width of this permanent visual contrast shall be not less than 50 mm and not more than 60 mm to all treads and risers.

2.32 Anything fixed or fitted to a tread or riser shall not create a trip hazard.

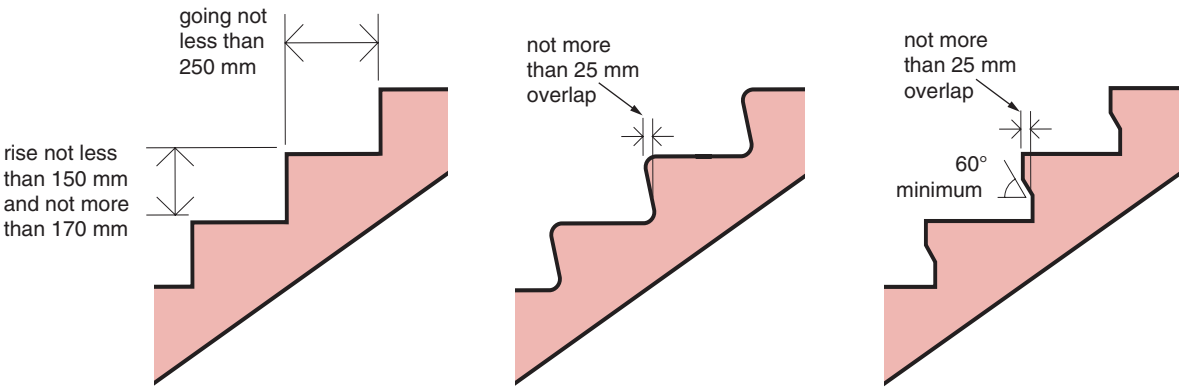
2.33 Steps shall have rises that are not open and have a suitable profile such that the risk of tripping is reduced (see Diagram 2.9).

Diagram 2.9 Details of stairs

see paras 2.14, 2.33, 2.36 and 2.37



(a) Stairs and handrails



(b) Examples of suitable step profiles

Landings

2.34 A landing shall be provided at the top and bottom of every flight.

The width of the landing shall be not less than the width of the stair.

The unobstructed length of each landing shall be not less than 1200 mm clear of any door swing onto it.

Part of a floor may be considered as a landing.

Handrails

2.35 A stair shall have a suitable continuous handrail on each side.

2.36 A handrail shall be at a height measured vertically of –

(a) not less than 900 mm and not more than 1000 mm, above the pitch of a flight; and

(b) not less than 900 mm and not more than 1100 mm, above the surface of a landing.

(See Diagram 2.9.)

2.37 Each end of a handrail shall extend horizontally for a distance of not less than 300 mm, along the top and bottom landings of a stair, be closed and terminate in a suitable way so that –

(a) it does not project into a route of travel; and

(b) it reduces the risk of clothing being caught.

(See Diagram 2.9.)

2.38 A handrail shall be –

(a) not less than 50 mm and not more than 60 mm clear of any adjacent side or enclosing surface wall, or guarding etc.;

(b) not less than 50 mm clear from the underside of the handrail to any cranked support; and

(c) not more than 50 mm beyond the outer edge of a flight of steps, to the inner side of the handrail.

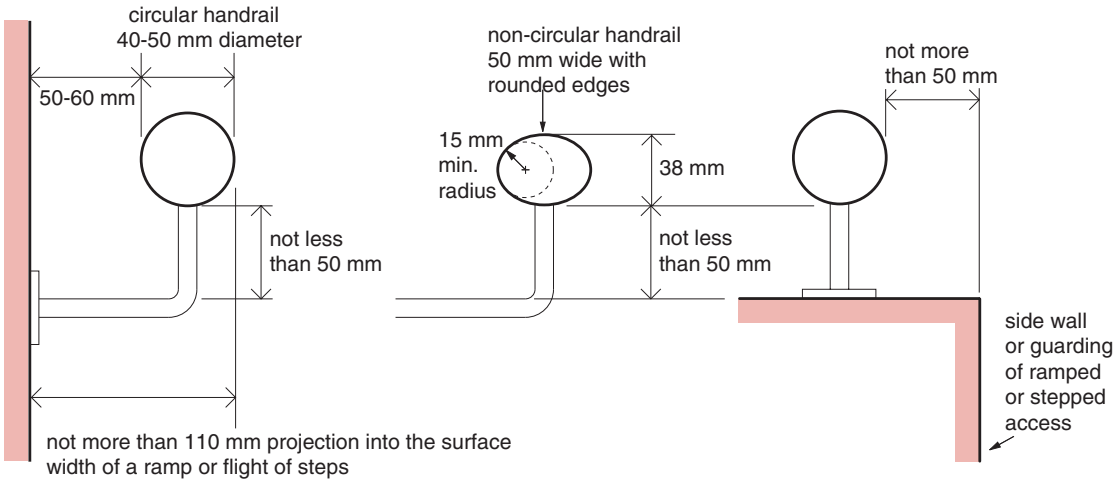
(See Diagram 2.10.)

2.39 The surface of a handrail shall be distinguishable through suitable visual contrast from the background against which it is seen.

2.40 A handrail shall have a suitable profile that is gripped easily (see Diagram 2.10).

Diagram 2.10 Examples of suitable handrails

see paras 2.38 and 2.40



Note: To be suitable for all to use, the profile of a handrail shall incorporate the above features

Section 3 Ramps

Ramps in dwellings

Gradient

3.1 A ramp shall have a gradient not steeper than 1 in 12 and shall be uniform throughout its length (see Diagram 3.1).

Width of ramps

3.2 The minimum width for a ramp shall be the same as that for a flight in a private stair (see paragraph 2.12 and Table 2.2).

3.3 The length of a ramp measured on plan, shall not exceed 10 m (see Diagram 3.1).

Landings

3.4 Landings shall be level and be provided at the top and bottom of a ramp (see Diagram 3.1).

The width and going of a landing shall be not less than the width of the ramp. Part of a floor may be considered as a landing.

3.5 Ramps shall be clear of obstructions and landings shall be clear of obstructions other than those described in paragraph 2.17.

Headroom

3.6 Ramps and associated landings shall have a clear headroom of not less than 2000 mm over the length and width of the ramp.

Headroom is measured vertically from the slope of the ramp and the level of the landing.

(See Diagram 3.1.)

Handrails

3.7 A ramp or a series of ramps with a total rise of more than 600 mm shall have a continuous handrail –

(a) on at least one side where they are 1000 mm wide or less; or

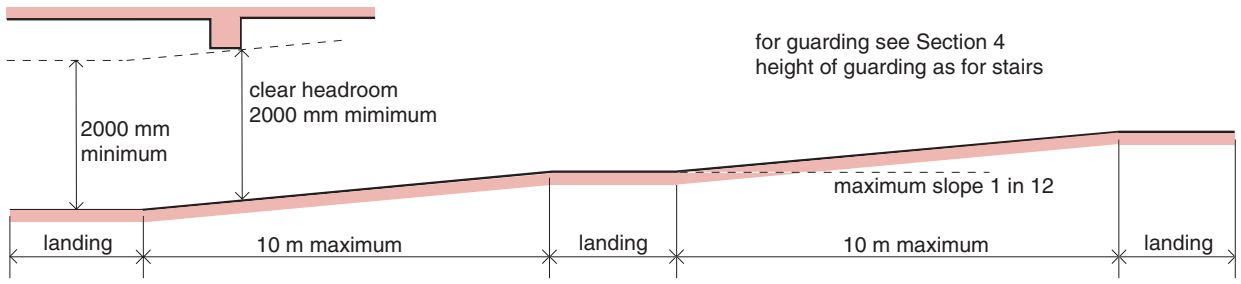
(b) on both sides where they are more than 1000 mm wide.

Handrails shall be at a height measured vertically of between 900 mm and 1000 mm above the surface of the ramp, give firm support and allow a firm grip.

Handrails may form the top of guarding.

Diagram 3.1 Ramp design

see paras 3.1, 3.3, 3.4, 3.6, 3.11 and 3.21



length of landings to be at least equal to the width of the ramp

Ramps within common areas of a block of dwellings

Length and gradient

3.8 A ramp shall be not more than –

(a) 10 m in length where the gradient of the ramp does not exceed 1 in 15; or

(b) 5 m in length where the gradient of the ramp does not exceed 1 in 12.

Width of ramps

3.9 A ramp shall have a surface width of not less than 1200 mm. Where a handrail is provided, the width at handrail level may be reduced to not less than 1000 mm.

Landings

3.10 Landings shall be level with an unobstructed length of not less than 1200 mm.

Headroom

3.11 Ramps and associated landings shall have a clear headroom of not less than 2000 mm over the length and width of the ramp.

Headroom is measured vertically from the slope of the ramp and the level of the landing (see Diagram 3.1).

Handrails

3.12 A ramp shall have a suitable continuous handrail on each side if the horizontal length of the ramp is more than 2000 mm.

Handrails shall be at a height measured vertically of between 900 mm and 1000 mm above the surface of the ramp, give firm support and allow a firm grip.

Ramps in buildings other than dwellings

3.13 The following provisions shall apply to a ramp which is not in a dwelling or in a block of dwellings.

Length and gradient

3.14 The maximum length of a ramp is dependent upon its gradient. Table 3.1 gives the maximum length of a ramp for a given gradient.

Table 3.1 Maximum length of ramps

Gradient of ramp	Maximum length of ramp (m)
1:20	10
1:19	9
1:18	8
1:17	7
1:16	6
1:15	5
1:14	4
1:13	3
1:12	2

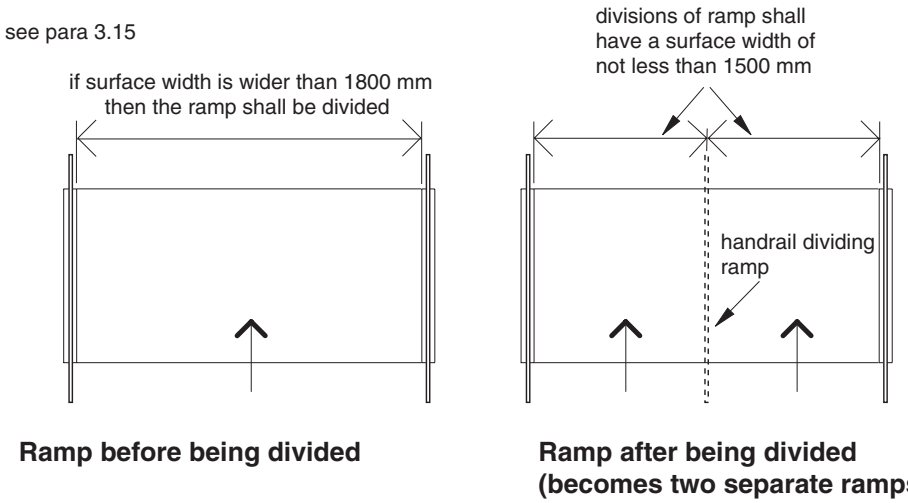
Width of ramps

3.15 A ramp or ramps and landings shall have a surface width of not less than 1500 mm.

Where a handrail protrudes into the surface width of a ramp by more than 100 mm the surface width shall be increased accordingly. In any case the maximum protrusion of a handrail into the surface width of a ramp shall be 110 mm.

A ramp which has a surface width wider than 1800 mm, shall be divided into ramps which are not wider than 1800 mm. The minimum surface width of 1500 mm then applies to each ramp (see Diagram 3.2).

Diagram 3.2 Dividing wide ramps



Construction of ramps

3.16 The surface of a ramp shall –

(a) be firm;

(b) reduce the risk of slipping; and

(c) be distinguishable, through suitable visual contrast, from that of its landings.

A ramp and its landings shall have similar surface frictional characteristics.

3.17 A ramp shall have a raised kerb on any open side (except where it would obstruct normal use). The raised kerb shall –

(a) be not less than 100 mm high; and

(b) be distinguishable, through suitable visual contrast, from that of the surface of the ramp and landings.

Landings

3.18 A landing shall be provided at the top and bottom of a ramp.

A landing shall be level, however, it may have a gradient along its length not steeper than 1 in 60.

The unobstructed length of a landing shall be not less than 1200 mm. Where a landing is between two ramps, it shall have an unobstructed length of not less than 1500 mm.

3.19 Where the ramped access consists of three or more ramps, the intermediate landings between each ramp shall have an unobstructed length of not less than 1800 mm and a surface width of not less than 1800 mm.

3.20 Where a ramp does not have a clear line of sight between its top and bottom landings, it shall be divided into two ramps such that there is a clear line of sight between the intermediate landing and the top and bottom landings. The intermediate landing shall have an unobstructed length of not less than 1800 mm, and a surface width of not less than 1800 mm.

[Enlarged landings can be used as passing places.]

Headroom

3.21 Ramps and associated landings shall have a clear headroom of not less than 2000 mm over the length and width of the ramp.

Headroom is measured vertically from the slope of the ramp and the level of the landing (see Diagram 3.1).

Handrails

3.22 A ramp or ramps and landings shall have a suitable continuous handrail on each side complying with the provisions of paragraphs 2.37 to 2.40.

3.23 A handrail shall be at a height measured vertically of –

(a) not less than 900 mm and not more than 1000 mm above the surface of a ramp; and

(b) not less than 900 mm and not more than 1100 mm above the level of a landing.

3.24 A handrail shall extend horizontally for a distance of not less than 300 mm along the top and bottom landings of a ramp except at an intermediate landing that is not more than 1800 mm in length where it shall extend the full length of the landing.

Section 4 Guarding

Design of guarding

4.1 The design of guarding shall be such as to minimise the risk of people falling, and of rolling, sliding or slipping through gaps in a barrier.

A wall, glazing, parapet, balustrade or similar construction may serve as guarding.

A sunken area next to a building is an area adjoining the building and includes a light well, access to a basement and similar areas. Guarding shall be provided to that part of a sunken area which is within 3 m of the building.

4.2 The height of guarding shall be measured vertically from the level of a floor or landing, the surface of a ramp or the pitch line of a flight.

However, the top of a portion of any balustrade guarding a landing at the top of a flight or ramp may be continuous with, and at the same angle as, the top of a balustrade guarding that flight or ramp.

4.3 Guarding which is provided at the locations given in Table 4.1 column (1) shall be –

(a) of a height not less than that given in column (2); and

(b) capable of resisting the horizontal force given in column (3) applied at a height of 1100 mm irrespective of the actual height of the guarding (see Diagram 4.1).

Diagram 4.1 Guarding

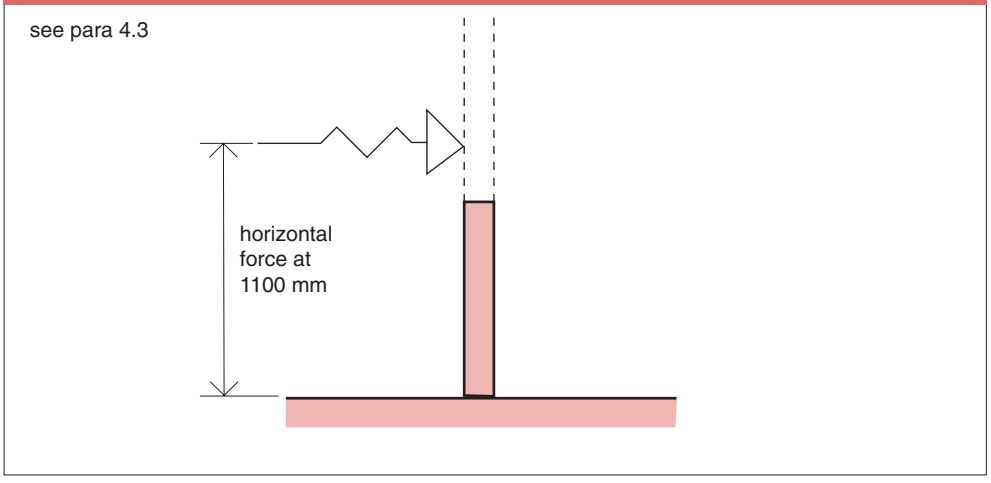


Table 4.1 Minimum height and strength of guarding

Location of guarding (1)	Minimum height+ (mm) (2)	Minimum horizontal force/metre run (kN/m) (3)
1 Dwellings		
(a) guarding a flight, ramp, landing or floor within a dwelling	900*	0.36
(b) guarding an external flight or ramp	900	0.74
(c) guarding a level for the purpose of maintenance	1100	0.36
(d) guarding not described in (a) to (c)	1100	0.74
2 Retail buildings		
(a) guarding a flight or ramp	900	1.50
(b) guarding a level for the purpose of maintenance	1100	0.36
(c) guarding not described in (a) or (b)	1100*	1.50
3 Other buildings		
(a) guarding a flight or ramp where crowd loading will not occur	900	0.74
(b) guarding a flight or ramp where crowd loading† will occur	900	3.00
(c) guarding not described in (b) where crowd loading† will occur	1100 *	3.00
(d) guarding a floor immediately in front of fixed seating	800	1.50
(e) guarding a level for the purpose of maintenance	1100	0.36
(f) guarding not described in (a) to (e)	1100 *	0.74

Notes

\+ In the case of a flight or ramp the height shall be measured from the pitch line of a flight or the surface of a ramp.

* This may be reduced to 800mm at openable windows or glazing at changes of level. The glazing may be designed to act as guarding, in which case separate guarding would not be required.

† Crowd loading will occur in parts of buildings where people assemble in large numbers such as theatres, discotheques, cinemas, sports halls, assembly halls, shopping malls and similar areas.

Infill panels

4.4 Where infill panels are provided they shall be designed and constructed in accordance with the relevant clauses of BS 6180:1999.

4.5 Where a building or part of a building is likely to be used by children under 5 years of age the guarding shall be constructed so that a 100 mm diameter sphere cannot pass through any opening in it other than a triangular opening formed by a tread, a rise and the bottom edge of the guarding if that bottom edge is not more than 50 mm above the pitch line. The guarding shall also be constructed so that a child cannot readily climb up it.

Section 5 Vehicle loading bays

Loading bays

5.1 A loading bay shall be provided with at least one exit point from the lower level (preferably near the centre of the rear wall).

5.2 A wide loading bay (with space for 3 or more vehicles) shall be provided with at least –

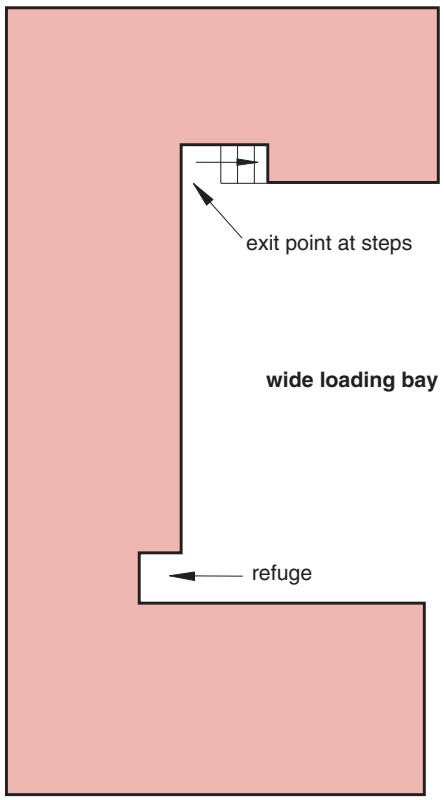
(a) two exit points, one at each side; or

(b) an exit point and a refuge,

which people can use to avoid being struck or crushed by a vehicle (see Diagram 5.1).

Diagram 5.1 Wide loading bays

see para 5.2



Section 6 Protection against impact from and trapping by doors

6.1 A door or gate –

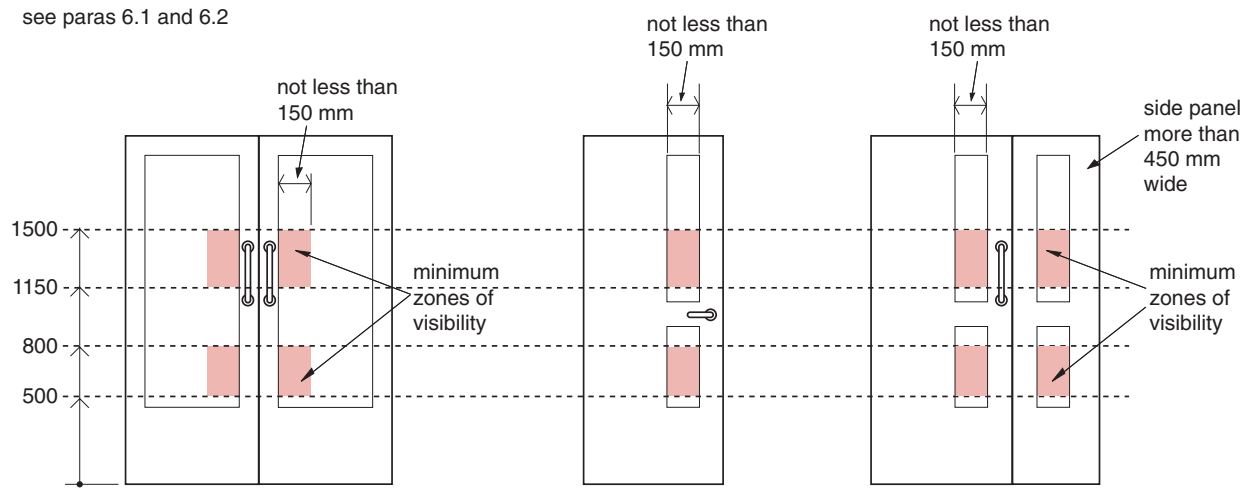
(a) across a main route of travel; or

(b) which can be pushed open from either side,

shall have, towards the leading edge of the door leaf, zones of visibility as shown in Diagram 6.1.

6.2 Any side panel that is more than 450 mm wide and is adjacent to a door or gate, that is required by paragraph 6.1 to have zones of visibility, shall also have zones of visibility (see Diagram 6.1).

Diagram 6.1 Zones of visibility



6.3 A door or gate that slides or opens upwards shall have a device to stop it falling in a way that may cause injury.

6.4 A power operated door or gate designed and constructed for vehicular traffic shall have –

(a) a pressure sensitive edge or other suitable device, which operates the power switch to prevent users being caught or trapped;

(b) a readily identifiable and accessible stop switch; and

(c) provision for manual or automatic opening in the event of a power failure.

6.5 A power operated door or gate designed and constructed for pedestrian use shall –

(a) incorporate a safety stop or door re-activating device to prevent the door striking a person passing through if the door begins to close; and

(b) revert to manual control or fail safe in the open position in the event of a power failure.

Section 7 Protection from collision with open windows, skylights or ventilators

7.1 Where any part of a window, skylight or ventilator, when open, could project more than 100 mm horizontally into a space less than 2000 mm above the ground or floor it shall be –

(a) fitted with a suitable device to restrict the projection in normal use to not more than 100 mm; or

(b) marked by a suitable feature such as –

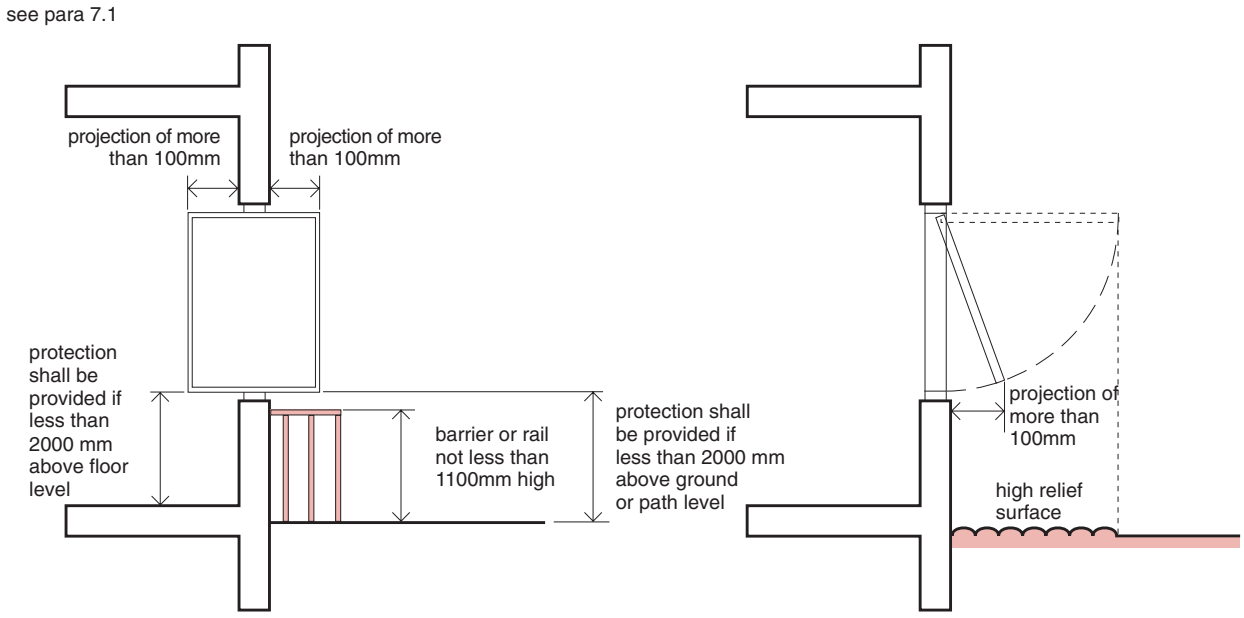
(i) a barrier or rail not less than 1100 mm high;

(ii) a high relief surface; or

(iii) a landscape feature,

which extends to at least the maximum projection of the window, skylight or ventilator (see Diagram 7.1).

Diagram 7.1 Marking by a barrier or high relief surface



(a) Marking by a barrier

(b) Marking by a high relief surface

Appendix Publications referred to

BS 6180: 1999	Barriers in and about buildings - Code of practice AMD 13292, Sept. 2001